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Book

The viral storm: the dawn of a new pandemic age



The Viral Storm: The Dawn of a New Pandemic Age
Nathan Wolfe. Henry Holt and Company, 2011. \$14.99, pp 320.
ISBN 0805091947

HIV, severe acute respiratory syndrome, and pandemic influenza A H1N1 are startling reminders of our vulnerability to emerging infectious diseases; indeed, even Hollywood film-makers seem to share this concern lately. In his book, *The Viral Storm*, Nathan Wolfe explores the origins of pandemics and the bold notion that we might soon enter an era in which pandemics could be stopped before they even begin.

Though occasionally elementary, this is a valuable and informative book for any health professional interested in infectious diseases. The reader remains engaged through rich examples and a discussion of a wide range of academic disciplines that build a strong case for why pandemics are occurring more frequently. Aided by personal anecdotes, Wolfe vividly captures the excitement of pathogen discovery and the importance this new age of infectious diseases holds for human health.

The first part of the book provides a historical context as to why human populations today might be especially susceptible to pandemics. These initial chapters describe the coevolution of modern human beings alongside microorganisms. Wolfe focuses on hunting as the ideal vehicle through which pathogens can travel between species and this becomes a theme he returns to repeatedly. The second part of the book examines the modern drivers of viral emergence, such as urbanisation, new medical technologies, deforestation, and livestock production.

The final part of the book moves on from the grim picture initially painted to explore "pandemic prevention". Wolfe suggests that technological advances in specialties such as

molecular biology and geographical information systems will enable scientists to pre-empt pandemics. He highlights progress that has been made by civil society and the public sector to mitigate risks of pandemics. He also describes the unique efforts by Global Viral Forecasting, an organisation Wolfe himself started, whose activities include monitoring human hunters and their kills for pathogens.

There is no shortage of novel pathogens capable of infecting human beings. These new contagions often originate from our altered interactions with the animals with which we share our planet, whether due to high-intensity commercial farming, environmental disturbances, or animal trafficking. Furthermore, it seems that a similar set of independent events have historically enabled a select few zoonoses to achieve pandemic proportion. As such, pandemics are not entirely random events and this is to our advantage. Wolfe is visionary in his ambition to reverse the drivers of pathogen emergence and to develop a new public health infrastructure capable of detecting novel agents of disease before they strike human beings (and animals) in large numbers. In dealing with this complex problem, issues of economic development, access to food, and environmental conservation will need to be jointly addressed. However, as science, technology, and global awareness continue to improve, *The Viral Storm* foreshadows sunnier skies ahead.

Neil Vora

nmv2108@columbia.edu